TRADING TECHNOLOGIES

J-GATE 3.0
Migration Guide v2.5

LEGAL

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Change Log

v1.1 05/19	"Changes introduced with the new Market": System Values updated, Delisted Products added. "Changes introduced with the new Market": Corrected Error in Product IDs - TOPIX Core30 OSE code was incorrectly listed as "T30D" instead of "TPX30" "Holiday Testing" section added.
v1.2 06/02	"Holiday Testing" section updated to include steps for order entry and checklist completion.
v1.3 06/25	"Required Versions and Dependencies" added "Changes introduced with the new Market" and "FAQ" updated to correct mistaken Security Exchange information previously communicated in error.
v1.4 07/13	"DR Failover" test added to "Holiday Testing" section. Inter-product Spreads added to "Changes introduced with the new Market"
v1.5 08/23	"Changes introduced with the new Market": System Values updated "Required Versions and Dependencies": .NET SDK updated "Pre-Migration" added "FAQ" updated
v1.6 08/26	"Pre-Migration" and "FAQ" updated

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Change Log

v2.0 09/8	"Pre-Migration" changed to "Migration Tasks" "FAQ" and "Go-Live Schedule" updated "Holiday Testing" deleted
v2.1 09/10	"Migration Tasks", "FAQ" and "Go-Live Schedule" updated
v2.2 09/10	"Migration Tasks" updated
v2.3 09/14	"Migration Tasks" updated "Rollback" added
v2.4 09/15	"Migration Tasks" updated
v2.5 09/17	"Changes introduced with the new Market" updated to correct mistaken a Product Symbol for Nikkei 225 Weekly Options. "Table of Contents" updated for improved readability.

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System Values

	TOCOM	*OSE*	*JPX*
Market ID	68	71	155
Security Exchange (Tag 207)	TOCOM	OSE	JPX
Subscriber Market Data Permissions	All Market Data	• All Market Data • Financial Futures/Options • Commodity Futures/Options	All Market Data
SecurityID / ExchangeTicker (Tag 22=8) format (Difference applies to OSE products only)	-	Example: FUT_JGBL_2109 (SecType_Code_YYMM)	Example: FUT_JBL_210913 (SecType_Code_YYMMDD)

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Product IDs (1 of 5)

	TOCOM	OSE	JPX
Gasoline Futures	GASO	-	GAS
Kerosene Futures	KERO	-	KRO
Gas Oil Futures	GSOL	-	GAO
Dubai Crude Oil Futures	CRUD	-	DBAI
Chukyo Gasoline Futures	CGAS	-	CGAS
Chukyo Kerosene Futures	CKER	-	CKRO
West Area Baseload Electricity Futures	TWBL	-	EWB
East Area Baseload Electricity Futures	TEBL	-	EEB
West Area Peakload Electricity Futures	TWPL	-	EWP
East Area Peakload Electricity Futures	TEPL	-	EEP
TOPIX Banks Index	-	BANK	BANK
DJIA	-	DJIA	DJIA
FTSE China 50 Index	-	FTC50	FT50

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Changes introduced with the new Market

Product IDs (2 of 5)

	TOCOM	OSE	JPX
5-year JGB	-	JGBM	JBM
10-year JGB	-	JGBL	JBL
10-year JGB mini	-	JGBLM	JBLM
20-year JGB	-	JGBSL	JBS
JPX-Nikkei Index 400	-	JN400	400
TSE Mothers Index	-	MOTHE	MOTH
Nikkei 225	-	NK225	225
Nikkei 225 mini	-	NK225M	225M
Nikkei 225 Weekly Options	-	NK225W	225W
Nikkei 225 Dividend Index	-	NKDIV	NKDV
Nikkei 225 VI	-	NKVI	NVI
Gold Rolling-Spot	-	OGDCD	GLDD
Gold Standard	-	OGOLD	GLD
Gold Mini	-	OM-GD	GLDM
Palladium	-	OPALL	PALD

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Product IDs (3 of 5)

	TOCOM	OSE	JPX
Platinum Standard	-	OPLAT	PLT
Platinum Mini	-	OM-PT	PLTM
Platinum Rolling-Spot	-	OPTCD	PLTD
RSS3 Rubber	-	ORSS3	RSS3
Silver	-	OSILV	SILV
Azuki (Red Bean)	-	OTGAB	REDB
Corn	-	OTGCN	CORN
Soybean	-	OTGSB	SOYB
TSR20 Rubber	-	OTSR2	TSR2
TSE REIT Index	-	REIT	REIT
RN Prime Index	-	RNP	RNP
TOPIX Core30	-	TPX30	C30
TAIEX	-	TAIEX	TAIX
TOPIX	-	TOPIX	TPX
mini-TOPIX	-	TOPIXM	TPXM
CME Group Petroleum Index	-	-	CMEP
Securities Options	-	-	8697

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Product IDs (4 of 5)

	TOCOM	OSE	JPX
Chukyo Gasoline-Kerosene	CKER|CGAS	-	CGAS|CKRO
Gasoline-Dubai Crude Oil	CRUD|GASO	-	GAS|DBAI
Gas Oil-Dubai Crude Oil	CRUD|GSOL	-	GAO|DBAI
Kerosene-Dubai Crude Oil	CRUD|KERO	-	KRO|DBAI
Gasoline-Gas Oil	GSOL|GASO	-	GAS|GAO
Kerosene-Gas Oil	GSOL|KERO	-	KRO|GAO
Gasoline-Kerosene	KERO|GASO	-	GAS|KRO
East Area-West Area Baseload Electricity	TWBL|TEBL	-	EEB|EWB
East Area-West Area Peakload Electricity	TWPL|TEPL	-	EEP|EWP
Gold Mini-Platinum Mini	-	OM-PT|OM-GD	GLDM|PLTM
Platinum-Gold Rolling-Spot	-	OPTCD|OGDCD	GLDD|PLTD
RSS3-TSR20 Rubber	-	OTSR2|ORSS3	RSS3|TSR2

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Product IDs (5 of 5)

	TOCOM	OSE	JPX
Cash-settled BARGE GASOLINE	TBGA	-	*Delisted*
Cash-settled LORRY GASOLINE	TLGA	-	*Delisted*
Platts Cash-settled BARGE KEROSENE	TBKE	-	*Delisted*
Platts Cash-settled LORRY KEROSENE	TLKE	-	*Delisted*
Platts Cash-settled BARGE GAS OIL	TBGO	-	*Delisted*
Platts Cash-settled LORRY GAS OIL	TLGO	-	*Delisted*
TOPIX core30 Dividend Index Futures		T30D	*Delisted*
TOPIX Dividend Index Futures		TPDIV	*Delisted*

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Required Versions and Dependencies

.NET SDK	*30.0.0.48*

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Migration Tasks – TT Side Workflow

To ease Customers' burden and reduce manual effort, TT will perform the following **Setup Data Migration** tasks ~~on September 19~~ during the weekend of September 11-12:

- Customers' User, Account and System details will be migrated automatically from OSE and TOCOM to JPX.

- After the Setup Data Migration is complete, Setup details that were saved for OSE and TOCOM will remain in place on OSE and TOCOM and will also be duplicated on JPX.

- Setup data will **not** be migrated from TOCOM to JPX for old TOCOM products that are now traded on OSE.

- It is highly recommended that customers use the period of time between Setup Data Migration and Go-Live to carefully review their settings and make any changes deemed necessary for production.

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The following Setup data will be migrated automatically during the Setup Data Migration:

- Product and Product Family Risk Limits
  - *NOTE*: ~~For OPTIONS,~~ Only Product and Product Family limits will be migrated automatically; Instrument/Contract limits will need to be migrated manually.
- Order Tag Defaults
- FIX Sessions, FIX Rules
- Market Data Permissions / Product Groups

Example of Risk Limit handing during Setup Data Migration

- In the figure below, the Limits that are highlighted will <u>not</u> be migrated automatically. All other Limits will be included in the data migration.

Limits

☐	ID	Exchange	Product Family	Prod Type	Product	Contract
☐	276778	OSE	*	Future	*	*
☐	276779	OSE	JGBL	Option	JGBL	*
☑	276781	OSE	JGBL	Option	JGBL	JGBL Sep21 C152.5
☑	276780	OSE	JGBL	Future	JGBL	JGBL Mar22

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The Migration effort also includes tasks that **Brokers must complete** on their side:

- **Connections** - Any time before September 20: Create new Connections for market "JPX" in TT Setup if needed. (Connections previously used for Weekend Testing may be used for Production if desired).

- **Accounts** - Any time before September 20: For all accounts that will be used for trading JPX, ensure they are assigned to JPX Connections.

- **Margins** - Any time before September 20: For all product margins that are defined on OSE and TOCOM, if necessary, ensure the appropriate margins have been defined for JPX products.
  - Use the Product Table in the "Changes introduced with the new Market" section of this document to determine which JPX product codes correspond to OSE and TOCOM products.

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Migration Tasks – Broker Side Workflow

The Migration effort also includes tasks that **Brokers must complete** on their side:

- **Position Management** - ~~September 20~~ Any time after the End of Trading on September 17: Close or Offset all open positions on OSE and TOCOM and manually create Start of Day records that re-create all open positions on JPX.
  - Use the Product Table in the "Changes introduced with the new Market" section of this document to determine which JPX product codes correspond to OSE and TOCOM products.

- NOTE: Due to data handling complications, the following products will not be available for creation of SODs before September 20:

225 Spreads	NVI Spreads
400 Spreads	REIT Spreads
BANK Spreads	RNP Spreads
C30 Spreads	TPX Spreads
MOTHE Spreads	TPXM Spreads

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The Migration effort also includes tasks that **End Users must complete** on their side:

- **Orders** - September 17: Cancel OSE & TOCOM orders before End of Trading.
- **Workspaces** - ~~September 20~~ Any time on or after September 13: OSE and TOCOM Market Grids instruments, Algo, etc will not automatically migrate to JPX instruments. Workspace widgets to be used for trading JPX will need to be recreated.
- **Market Data Agreement** - Additional steps are not required for traders who previously accepted the OSE agreement. Traders who did not accept the OSE agreement will need to accept a Market Data Agreement for JPX when opening a JPX instrument for the first time during production trading.

NOTE: Due to data handling complications, instruments within the following products will not be available for Workspace creation or Workspace modification before September 20:

225 Spreads	NVI Spreads
400 Spreads	REIT Spreads
BANK Spreads	RNP Spreads
C30 Spreads	TPX Spreads
MOTHE Spreads	TPXM Spreads

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Migration Tasks – Trader Side Workflow

Regarding Order Cancellation:

- OSE and TOCOM orders should be cancelled before the end of trading on Friday, Sep. 17.

- The exchange will expire all working orders that are not deleted by users. TT **strongly** recommends that users not rely on the exchange's order expiration process and **fully** encourages users to manage their own order cancellations.

- There is no OSE, TOCOM Night Session on Friday, Sep. 17.

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Migration Tasks – Important Information

- On Sunday, September 19, TT will completely delete and rebuild the PDS Product Database for JPX. Because Product Data that the exchange used during Weekend Testing does not match Production Product Data, this is a necessary step to ensure the Production Trading will proceed without Product download problems.

- ~~Because this difference in Product and Contract information impacts all systems, there are several effects to TT systems~~ TT Engineers have devised a plan to ensure that, despite the Database rebuild, there is as little as possible impact to TT systems or users. Customers should, however, <u>refrain from</u> creating any of the records listed below before <u>September 13</u>. Since the Setup Data Migration process will be completed during the weekend of September 11-12, waiting until September 13 to create the following will ensure data consistency during the Migration process:

  - **RISK** - JPX Risk Limits created before the Database rebuild will ~~be lost during~~ persist throughout the Migration process.

  - **SODs** - JPX Start of Day records created before the Database rebuild will ~~be lost during~~ persist throughout the Migration process.

  - **Workspaces** - JPX-related settings (Market Grid instruments, Market Depth Traders, Algos, etc) created before the Database rebuild will ~~be lost or invalidated during~~ persist throughout the Migration process.

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Go-Live Schedule

9 / 12	9 / 13	9 / 17	9 / 19	9 / 20	9 / 21	9 / 22
		Last Day of OSE,TOCOM Trading (both UAT & Prod)	Go-Live Rehearsal	Final Preparation		

All JPX Connections created and all Accounts mapped

Trader Workspace related tasks completed

Position Management tasks (after 9/17 Close)

| Production OSE, TOCOM Setup Data Migration | | All OSE & TOCOM working orders Cancelled before End of Trading | PDS Product Database for JPX rebuilt | | GO LIVE | Historical Data becomes available on JPX |

Broker / End User Task   TT Task

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Rollback – Overview / TT Side Workflow

Go-Live success or failure depends on a final judgement from the exchange

- Around 7:00 PM JST on September 19, the exchange will announce success or failure of the Go-Live / exchange-side migration.

- If the exchange determines that Go-Live will not proceed, TT will perform the following Rollback events on September 19 immediately after the exchange's announcement.

Rollback - TT Side Workflow

- Restore PDS Databases for OSE and TOCOM, including all MIC and RIC codes.

- Start all OSE and TOCOM OrderConnector and Market Data Server services.

- Restart all FIX Nodes

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Rollback – Broker Side Workflow

In the event of a Rollback, there are tasks that **Brokers must complete** on their side:

- **Connections** - Ensure that all Connections for OSE and TOCOM are enabled.

- **Accounts** - If any Account mapping changes were made in preparation for JPX Go-Live, ensure that all OSE and TOCOM mappings are ready to resume OSE and TOCOM trading.

- **Position Management** - Manually create OSE and TOCOM SOD positions to re-create all positions that were still open as of the end of trading on September 17. Delete all positions that were created on JPX.
  - NOTE: All OSE and TOCOM Product and Instrument names will return to their last known state consistent with the end of trading on September 17.

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Rollback – Trader Side Workflow

In the event of a Rollback, Traders should note the following:

- There is no trading impact to Traders / End-Users. On September 21, traders will resume trading on OSE and TOCOM the same as on September 17 and prior.

- **Workspaces** - Traders will need to Refresh their workspaces on or after September 20. Workspace widgets and Algos that were setup for JPX will remain in workspaces, but will appear "greyed out" and will display messages such as "Order Routing is unavailable for JPX" and "Market Data unavailable."

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Will MIC Codes (Tag 30) on JPX be different from OSE and TOCOM?
- No. The JPX market will continue using the same values that OSE and TOCOM use in production today.

Will SecurityExchange (Tag 207) on JPX be different from OSE and TOCOM?
- Yes. For the JPX market all FIX Sessions will use 207=JPX.

The "Migration Tasks" mentioned in this document. Is that a new procedure that TT is performing specifically for JPX?
- No. This is a common and tested procedure that has completed in Production across many markets over the past several years.

After the migration, will TT remove the old OSE and TOCOM Setup data (Connections, Limits, etc)?
- Yes. This is currently planned for September 26.

When will Billing for JPX begin?
- Billing for OSE/TOCOM will continue through Sep 30. Billing for JPX will begin on Oct 1.

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FAQ

After the migration, will OSE and TOCOM data continue to be accessible in PDS?
- No. All OSE and TOCOM product and instrument records will go "Inactive" and will no longer be accessible.

Will the instruments in users' workspaces automatically convert from OSE/TOCOM instruments to JPX instruments?
- No. Users will need to add JPX instruments to workspaces just as if accessing a completely new exchange.

What will happen if OSE and TOCOM orders are still working after the End of Trading on Friday, Sep. 17?
- The exchange will expire all working orders that are not deleted by users. TT **strongly** recommends that users not rely on the exchange's order expiration process and **fully** encourages users to manage their own order cancellations.

What are the current position rollover times in Production? What time is used for JPX?
-

TOCOM	16:05 JST
OSE	15:20 JST
JPX	15:20 JST

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